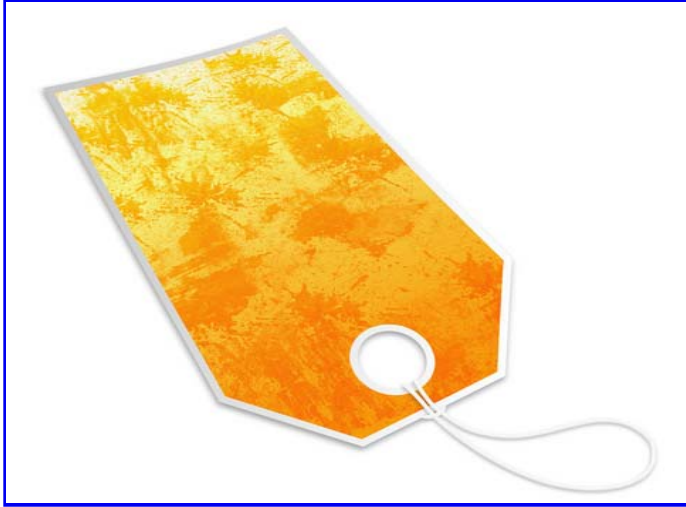


Pricing Protection

Posted By [dmalakoff](#) On August 30, 2010 @ 4:32 am In [Journal Watch](#) | [No Comments](#)



[1]Protecting ocean habitat can be a bit like buying laundry detergent: Better to buy in bulk. A first-ever effort to put a price tag on the cost of setting up new marine protected areas (MPAs) finds that costs can vary, but that bigger reserves deliver more bang for the buck. Researchers calculate that planners have spent anywhere from \$41 to \$1.1 million per square kilometer to get new reserves up and running.

Marine reserves have become an increasingly popular approach to protecting ocean life, and the number of reserves around the world has been growing at about 5% per year. Advocates have long touted the benefits of MPAs, such as protecting habitat and providing nursery grounds that can help species restock nearby waters. Costs, however, are rarely discussed, although scholars have tallied typical annual

operating budgets.

To put better numbers on the price of conservation, Ashley McCrea-Strub of the University of British Columbia and colleagues took a close look at the financing of 13 MPAs that have been established around the world over the last few decades. They ranged from the postage-stamp-sized Bibilik preserve in the Philippines, which covers just two-tenths of a square kilometer, to the vast Papahanamokuakea reserve in the Northwestern Hawaiian Islands, which encompasses 362,000 square kilometers. For each reserve, the team tried to document spending as the project moved from idea to reality, a process that took anywhere from a year to nearly a decade. In a paper published online on August 24 by Marine Policy, they even put a price on volunteer labor and the in-kind donations of goods and services.

By one measure – gross cost in 2005 U.S. dollars, adjusted for local purchasing power – the Bibilik preserve was the cheapest of the lot, costing \$8,002 over 3 years. The priciest: Papahanamokuakea, at \$34.8 million over 9 years. From a cost-per-unit-area perspective, however, the Hawaiian preserve was a bargain, just \$96 per square kilometer. Cheaper still was the 246,608-square-kilometer Mariana Trench reserve, at \$41 per. In contrast, the Bibilik Philippine reserve rung up at a hefty \$40,011 per square kilometer. Even that number was dwarfed, however, by the price of the Chumbe Island Coral Park, a privately-initiated, 0.5 square kilometer reserve near Zanzibar, Tanzania. It cost \$1.1 million per square kilometer, largely due to lengthy political and permit delays and the construction of a visitor's center and tourist villas.

The authors say the Chumbe Island story highlights one of the study's main lessons: Bigger and quicker appears to be better, price-wise. But their small, relatively limited study also raises a number of questions, they add. For instance: Is it cheaper to establish MPAs in developing nations? Does the cost of establishing a new MPA in a country that already has existing reserves drop due to established infrastructure? And can planners use set-up costs and reserve size to predict the costs of running new reserves? Bigger studies will be needed to provide answers, they say – and maybe spot the best conservation bargains. – **David Malakoff**

Source: McCrea-Strub, A., Zeller, D., Rashid Sumaila, U., Nelson, J., Balmford, A., & Pauly, D. (2010). Understanding the cost of establishing marine protected areas. *Marine Policy* DOI:

[10.1016/j.marpol.2010.07.001](http://dx.doi.org/10.1016/j.marpol.2010.07.001) [2]

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[1] Image: http://www.conservationmagazine.org/wp-content/uploads/2010/08/TAG-dreamstime_115513991.jpg

[2] 10.1016/j.marpol.2010.07.001: <http://dx.doi.org/10.1016/j.marpol.2010.07.001>

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